

Appl. No. : Unknown
Filed : Herewith

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) ~~An A dental implant (5) which can be fitted in an implantation site in for insertion into a hole (4) formed in a jaw bone (1) where it is exposed to and exposure to an impinging force or impinging forces, (F1, F2), and which the dental implant comprising comprises one or more peripherally extending surfaces which are arranged at its at an upper/outer portion of the dental implant and are configured to and which can be placed against a jaw bone part at an the outlet opening (4b) of the hole, wherein characterized in that each surface of the one or more peripherally extending surfaces are is provided with a pattern (8) of grooves (10) and/or recesses, and in that a considerable number, for example in which greater than 20% or more, of the grooves and/or recesses are configured designed so that, in the hole implantation site, they the pattern of grooves and/or recesses extend substantially at right angles to, and if appropriate or parallel to, said impinging forces when these impinging forces assume principal directions differing from the longitudinal direction (5e) of the implant.~~

2. (Currently amended) The dental implant. as ~~elaimed in patent claim 1, wherein~~ characterized in that the grooves (10) and/or recesses are closed, i.e., have no connection to the upper and/or lower parts (9d, 9e) of the portion, ~~and thus prevent passage of bacteria and/or organisms the upper parts to the lower or inner parts of the implant.~~

3. (Currently amended) The dental implant as ~~in claim 1, wherein elaimed in patent~~ elaim 1 or 2, characterized in that the grooves (10) and/or recesses have a depth which lies in the range if 50 – 100 μm , ~~and is preferably, in order in this way to stimulate growth of bone or osteoconduction.~~

4. (Currently amended) The dental implant as ~~in claim 1, wherein elaimed in patent~~ elaim 1, 2 or 3, characterized in that the grooves and/or recesses have a width (~~B~~) in the range of 100-150 μm , ~~preferably ca. 110.~~

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5. (Currently amended) The dental implant as in claim 1, wherein ~~elaimed in patent claim 1,2, or 4, characterized in that~~ the upper/outer portion has an inner socket (20) which is polygonal, toothed or with two or more wings, and the grooves and/or the recesses are arranged at parts (17b, 17e) of greater material thickness at the upper/outer portion.

6. (Currently amended) The dental implant as in claim 1, wherein ~~elaimed in any of the preceding patent claims, characterized in that~~ the pattern comprises straight and parallel groove parts (16a, 16a') with at least two directions of inclination and are arranged round all or part of the peripheral surface, and in that the groove parts extend relation to a cross section through the surface.

7. (Currently amended) The dental implant as in claim 1, wherein ~~elaimed in any of patent claims 1-5, characterized in that~~ the pattern comprises sinusoidal groove recess parts (18b, 18c, 18d).

8. (Currently amended) The dental implant as in claim 1, wherein ~~elaimed in any of patent claims 1-5, characterized in that~~ the pattern comprises one or more groups of grooves arranged mutually parallel and with different longitudinal extents.

9. (Currently amended) The dental implant as in claim 1, wherein ~~elaimed in any of the preceding patent claims, characterized in that~~ the peripherally extending surfaces (14a) are formed on a flange arrangement.

10. (Currently amended) The dental implant as elaimed in claim 1, wherein ~~any of the preceding patent claims, characterized in that~~ the principal direction of the impinging force or forces (F3) is for the most part is oblique in relation to the longitudinal direction (5e') of the fitted implant, because the implant assumes an inclined position in the hole formed in the jaw bone.

11. (Currently amended) The dental implant as in claim 1, wherein ~~elaimed in any of patent claims 1-10, characterized in that~~ the principal direction of the impinging force or forces (F1, F2) is for the most part oblique in relation to the fitted implant, because of the oblique settings of impinging force or forces in the implantation environment (cf. ~~chewing movements~~).

12. (Currently amended) The dental implant as in claim 1, wherein the ~~as elaimed, in any of the preceding patent claims, characterized in that~~ its groove or recess pattern is unique for a first implant design which differs in respect of this pattern from a second implant design.

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13. (Currently amended) The dental implant as in claim 1, wherein ~~elaimed in any of the preceding patent claims, characterized in that~~ the implant is exposed to forces (F4) with mutually different directions, and in that a. first part or parts of the groove and/or recess pattern (16a) is/are substantially at right angles in relation to a first force direction and in that a second part or parts of the pattern is/are substantially at right angles in relation to a second force direction and, if appropriate, so on, if a further force direction or force directions present.

14. (Currently amended) The dental implant as ~~elaimed in patent claim 9, wherein~~ characterized in that said flange arrangement (17) is cylindrical.

15. (Currently amended) The dental implant as ~~elaimed in patent claim 9, wherein~~ characterized in that said flange arrangement (22) is conical.

16. (Currently amended) The dental implant as ~~elaimed in patent claim 9, wherein~~ characterized in that said flange arrangement (21) is scalloped.